

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A joint compound sanding device comprising:
 - a hand held housing;
 - a bottom plate including:
 - a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;
 - a plurality of dust collection channels formed in the bottom surface of the bottom plate defining mesas there between, the mesas for supporting a porous joint compound sanding screen; ~~and~~
 - a dust collection fan with a fan inlet joined to the vacuum manifold; and
 - a motor coupled to the hand held housing with a rotating shaft coupled to the dust collection fan for rotating the dust collection fan such that air is drawn through an abrasive surface of the porous joint compound sanding screen, through the channels, through the dust collection apertures into the vacuum manifold and through the fan inlet and expelling the air into an exhaust manifold.
2. (Previously Presented) The joint compound sanding device of claim 22, further comprising means for moving the bottom plate with respect to the housing in a linear motion.
3. (Original) The joint compound sanding device of claim 1, wherein the vacuum manifold is defined by the bottom plate, a top surface and side walls extending around the periphery of the bottom plate, and wherein the top surface includes a central aperture there-through and joined with the fan inlet whereby air that is drawn through the porous joint compound sanding screen is drawn through the channels, through the dust collection apertures into the vacuum manifold and

through the central aperture to the fan inlet.

4. (Previously Presented) The joint compound sanding device of claim 3, further comprising means for moving the bottom plate with respect to the housing.

5. (Previously Presented) The joint compound sanding device of claim 3, wherein the bottom plate, the top surface, and the side walls form a base; and the joint compound sanding device further comprises means for moving the base with respect to the housing.

6. (Previously Presented) A joint compound sanding device comprising:
a hand held housing;
a bottom plate including:
a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;
a plurality of dust collection channels formed in the bottom surface of the bottom plate defining mesas there between, the mesas for supporting a porous joint compound sanding screen;
a dust collection fan with a fan inlet joined to the vacuum manifold;
a motor coupled to the hand held housing with a rotating shaft coupled to the dust collection fan for rotating the dust collection fan such that air is drawn through a porous joint compound sanding screen, through the channels, through the dust collection apertures into the vacuum manifold and through the fan inlet and expelling the air into an exhaust manifold;
wherein the vacuum manifold is defined by the bottom plate, a top surface and side walls extending around the periphery of the bottom plate, and wherein the top surface includes a central aperture there-through and joined with the fan inlet whereby air that is drawn through the porous joint compound sanding screen is drawn through the channels, through the dust collection apertures into the vacuum manifold and through the central aperture to the fan inlet;

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wherein the bottom plate, the top surface, and the side walls form a base; and the joint compound sanding device further comprises means for moving the base with respect to the housing in a linear motion and the means for moving the base with respect to the housing comprises:

at least one track extending in a longitudinal direction for coupling to a matting track of the housing and permitting motion of the base with respect to the housing in the longitudinal direction while restricting motion of the base with respect to the housing in a lateral direction;

a lateral slot;

the joint compound sanding device further comprises an idler spinning in a plane parallel to the base and comprising an off axis drive lug engaged in the lateral slot; and

the motor further rotates the idler thereby causing the base oscillate with respect to the housing in the longitudinal direction.

7. (Original) The joint compound sanding device of claim 6, wherein the base further comprises a mounting for supporting an extension, the extension comprising an abrasive surface generally planar to the bottom surface of the base when supported by the mounting.

8. (Original) The joint compound sanding device of claim 7, wherein the mounting comprising:

a tube for engaging a pin secured to the extension; and
means for securing the pin within the tube.

9. (Original) The joint compound sanding device of claim 8, wherein:

the pin extending into the tube a distance at least half of the width of the base in a lateral direction and includes an engagement slot; and

the means for securing the pin within the tube comprises an engagement plate positioned in the center of the base in the lateral direction for engaging the

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engagement slot.

10. (Currently Amended) A joint compound sanding device comprising:
- a hand held housing comprising a vacuum port for coupling the joint compound sanding device to an external suction source;
 - a bottom plate including:
 - a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;
 - a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting ~~the~~ a porous joint compound sanding screen;
 - a manifold coupling the vacuum manifold to the vacuum port such that air is drawn through an abrasive surface of the ~~a~~-porous joint compound sanding screen, through the channels, through the dust collection apertures into the vacuum manifold and through the manifold and vacuum port by the external suction source;
 - and
 - a motor coupled to the hand held housing and coupled to the bottom plate for moving the bottom plate with respect to the housing.

11. (Previously Presented) The joint compound sanding device of claim 23, further comprising means for moving the bottom plate with respect to the housing in a linear motion.

12. (Original) The joint compound sanding device of claim 10, wherein the vacuum manifold is defined by the bottom plate, a top surface and side walls extending around the periphery of the bottom plate, and wherein the top surface includes a central aperture there-through and joined with manifold whereby air that is drawn through the porous joint compound sanding screen is drawn through the channels, through the dust collection apertures into the vacuum manifold and through the central aperture to the manifold.

13. (Previously Presented) The joint compound sanding device of claim 12, wherein:

- the bottom plate, the top surface, and the side walls form a base; and
- the motor for moving the bottom plate with respect to the housing comprises means for moving the base with respect to the housing.

14. (Original) The joint compound sanding device of claim 12, wherein the means for moving the base with respect to the housing comprises:

- at least one track extending in a longitudinal direction for coupling to a matting track of the housing and permitting motion of the base with respect to the housing in the longitudinal direction while restricting motion of the base with respect to the housing in a lateral direction;

- a lateral slot;

- the joint compound sanding device further comprises a motor rotating an idler spinning in a plane parallel to the base and comprising an off axis drive lug engaged in the lateral slot thereby causing the base to oscillate with respect to the housing in the longitudinal direction.

15. (Previously Presented) A joint compound sanding device comprising:

- a hand held housing comprising a vacuum port for coupling the joint compound sanding device to an external suction source;

- a bottom plate including:

- a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;

- a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting the porous joint compound sanding screen;

- a manifold coupling the vacuum manifold to the vacuum port such that air is drawn through a porous joint compound sanding screen, through the channels,

through the dust collection apertures into the vacuum manifold and through the manifold and vacuum port by the external suction source;

wherein the vacuum manifold is defined by the bottom plate, a top surface and side walls extending around the periphery of the bottom plate, and wherein the top surface includes a central aperture there-through and joined with manifold whereby air that is drawn through the porous joint compound sanding screen is drawn through the channels, through the dust collection apertures into the vacuum manifold and through the central aperture to the manifold;

wherein the means for moving the base with respect to the housing comprises: i) at least one track extending in a longitudinal direction for coupling to a matting track of the housing and permitting motion of the base with respect to the housing in the longitudinal direction while restricting motion of the base with respect to the housing in a lateral direction; and ii) a lateral slot;

the joint compound sanding device further comprises a motor rotating an idler spinning in a plane parallel to the base and comprising an off axis drive lug engaged in the lateral slot thereby causing the base to oscillate with respect to the housing in the longitudinal direction; and

wherein the base further comprises a mounting for supporting an extension, the extension comprising an abrasive surface generally planar to the bottom surface of the base when supported by the mounting.

16. (Original) The joint compound sanding device of claim 15, wherein the mounting comprising:

a tube for engaging a pin secured to the extension; and
means for securing the pin within the tube.

17. (Original) The joint compound sanding device of claim 6, wherein:

the pin extending into the tube a distance at least half of the width of the base in a lateral direction and includes an engagement slot; and

the means for securing the pin within the tube comprises an engagement

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plate positioned in the center of the base in the lateral direction for engaging the engagement slot.

18. (Currently Amended) A method of sanding hardened joint compound, the method comprising:

securing a porous joint compound sanding screen to a bottom plate that is connected to a hand held housing, the bottom plate comprising:

a plurality of dust collection apertures extending through the bottom plate between the vacuum manifold and a bottom surface of the bottom plate;

a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting ~~a~~the porous joint compound sanding screen;

coupling a motor to the hand held housing and bottom plate for moving the bottom plate with respect to a hand held housing to create a sanding action; and

forming a vacuum within a vacuum manifold above the bottom plate to draw air and dust through an abrasive surface of the porous joint compound sanding screen, through the channels, through the dust collection apertures and into the vacuum manifold.

19. (Original) The method of claim 18, wherein the vacuum manifold is defined by the bottom plate, a top surface and side walls extending around the periphery of the bottom plate, and wherein the top surface includes a central aperture there-through and joined with a fan inlet whereby a fan performs the step of drawing the air and dust through the porous joint compound sanding screen, through the channels, through the dust collection apertures into the vacuum manifold.

20. (Previously Presented) The method of claim 19, wherein the bottom plate, the top surface, and the side walls form a base; and the step of moving the bottom plate with respect to a hand held housing comprises moving the base with respect to the housing in a linear motion.

21. (Previously Presented) A joint compound sanding device of claim 1, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the porous joint compound sanding screen.
22. (Previously Presented) The joint compound sanding device of claim 21, wherein the motor is further coupled to the hand held housing for moving the bottom plate with respect to the housing.
23. (Previously Presented) A joint compound sanding device of claim 10, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the porous joint compound sanding screen.
24. (Previously Presented) The method of claim 18, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the porous joint compound sanding screen.
25. (Previously Presented) The method of claim 18, wherein the step of moving the bottom plate with respect to the hand held housing is performed by a motor coupled to the hand held housing for moving the bottom plate with respect to the housing.
26. (Previously Presented) The method of claim 18, wherein the step of forming a vacuum within a vacuum manifold comprises using a motor coupled to a fan for forming such vacuum.
27. (New) A joint compound sanding device comprising:

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- a hand held housing;

- a bottom plate including:

 - a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;

 - a plurality of dust collection channels formed in the bottom surface of the bottom plate defining mesas there between, the mesas for supporting a uniformly porous joint compound sanding screen; and

 - a dust collection fan with a fan inlet joined to the vacuum manifold;

 - a motor coupled to the hand held housing with a rotating shaft coupled to the dust collection fan for rotating the dust collection fan such that air is drawn through the uniformly porous joint compound sanding screen, through the channels, through the dust collection apertures into the vacuum manifold and through the fan inlet and expelling the air into an exhaust manifold.

28. (New) A joint compound sanding device of claim 27, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the uniformly porous joint compound sanding screen.

29. (New) A joint compound sanding device comprising:

- a hand held housing comprising a vacuum port for coupling the joint compound sanding device to an external suction source;

- a bottom plate including:

 - a plurality of dust collection apertures extending through the bottom plate between a vacuum manifold and a bottom surface of the bottom plate;

 - a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting a uniformly porous joint compound sanding screen;

 - a manifold coupling the vacuum manifold to the vacuum port such that air is drawn through the uniformly porous joint compound sanding screen, through the

channels, through the dust collection apertures into the vacuum manifold and through the manifold and vacuum port by the external suction source; and
a motor coupled to the hand held housing and coupled to the bottom plate for moving the bottom plate with respect to the housing.

30. (New) A joint compound sanding device of claim 29, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the uniformly porous joint compound sanding screen.

31. (New) A method of sanding hardened joint compound, the method comprising:

securing a uniformly porous joint compound sanding screen to a bottom plate that is connected to a hand held housing, the bottom plate comprising:

a plurality of dust collection apertures extending through the bottom plate between the vacuum manifold and a bottom surface of the bottom plate;

a plurality of dust collection channels formed in the bottom surface defining mesas there between, the mesas for supporting the uniformly porous joint compound sanding screen;

coupling a motor to the hand held housing and bottom plate for moving the bottom plate with respect to a hand held housing to create a sanding action; and

forming a vacuum within a vacuum manifold above the bottom plate to draw air and dust through the uniformly porous joint compound sanding screen, through the channels, through the dust collection apertures and into the vacuum manifold.

32. (New) The method of claim 31, wherein the bottom plate further comprises a perimeter mesa formed about the periphery of the bottom plate to restrict the flow of air into the channels to only that air that has been drawn through the uniformly porous joint compound sanding screen.